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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,369	09/02/2003	Richard D. Tenaglia	LSP-50	4225

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EXAMINER	
EVANS. GEOFFREY S	

ART UNIT	PAPER NUMBER
1725	

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/654,369	TENAGLIA ET AL.	
	Examiner	Art Unit	
	Geoffrey S. Evans	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) *15-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-12,14 and 21-28* is/are rejected.

7)☒ Claim(s) *5,6 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 15-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3 March 2005.

2. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Dependent claim 23 recites "pre-spraying the workpiece with said adherent, spreading material prior to said step of applying said energy absorbing material" which contradicts independent claim 21 which recites that the "energy absorbing overlay being composed of an adherent, uniformly spreading material". Is the adherent spreading material the same as the energy absorbing overlay or two different substances? In this office action it is assumed that they are the same substance or material.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4,7,8,14,21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dulaney et al. in U.S. Patent No. 6,057,003 in view of Sokol et al. in U.S. Patent No. 6,254,703. Dulaney et al. discloses a method of treating a workpiece by applying shockwaves by applying an energy absorbing material (opaque, see column 4,lines 12-19) layer that can be either graphite or carbon black with a transparent material. Dulaney et al. further discloses that mineral oils or other hydrocarbon based fluids may be utilized as a transparent material (see column 4,lines 37-38). Additionally Dulaney et al. discloses that a transparent overlay can be used in combination with the energy absorbing (opaque) layer (see column 4,lines 7-11), and that the transparent overlay can be water (see column 4,line 23). Sokol et al. teaches that the process of laser shocking involves vaporization of part of the overlay material (see column 4,lines 56-62). It would have been obvious to adapt Dulaney et al. in view of Sokol et al. to provide a transparent overlay upon an energy-absoring overlay to laser shock peen the workpiece. Determining the proper viscosity and level of adherence is considered a matter of routine experimentation and well within the level of ordinary skill in the art.

6. Claims 9-11, are rejected under 35 U.S.C. 103(a) as being unpatentable over Dulaney et al. in view of Sokol et al. as applied to claim 1 above, and further in view of Toller et al. in U.S. Patent No. 6,064,035. Toller et al. teaches reusing a transparent overlay material (see column 3,line 38). It would have been obvious to adapt Dulaney

et al.in view of Sokol et al. and Toller et al. to provide this to use less transparent overlay material by reusing the transparent overlay material.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dulaney et al.in view of Sokol et al. and Toller et al. as applied to claim 11 above, and further in view of Dykes et al. in U.S. Patent No. 6,548,782. Dykes et al. teaches monitoring the thickness of the overlay portion and adjusting a total thickness to conform with a desired thickness. It would have been obvious to adapt Dulaney et al. in view of Sokol et al., Toller et al. and Dykes et al. to provide this to achieve the desired thickness level for laser shock processing.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dulaney et al. in U.S. Patent No. 6,057,003 in view of Sokol et al. in U.S. Patent No. 6,254,703 as applied to claim 23 above, and further in view of Dykes et al. in U.S. Patent No. 6,548,782. Dykes et al. teaches supplying the energy absorbing overlay material where it is needed. It would have been obvious to adapt Dulaney et al. in view of Soikol et al. and Dykes et al. to provide this so that laser shock processing is accomplished with the overlay materials at the proper thickness.

9. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dulaney et al. in U.S. Patent No. 6,057,003 in view of Sokol et al. in U.S. Patent No. 6,254,703 as applied to claim 21 above, and further in view of Risbeck et al. in U.S. Patent No. 6,500,269 B2. Risbeck et al. teaches cleaning the surface with a fluid spray after applying shockwaves (e.g. see column 7,lines 30-39). It would have been obvious to

adapt Dulaney et al. in view of Sokol et al., Risbeck et al. to provide this to remove the particles that have been dislodged by the shockwaves.

10. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dulaney et al. in U.S. Patent No. 6,057,003 in view of Sokol et al. in U.S. Patent No. 6,254,703 as applied to claim 21 above, and further in view of Risbeck et al. in U.S. Patent No. 6,500,269 B2 and Dulaney in U.S. Patent No. 5,741,559. Risbeck et al. teaches laser shock processing at a plurality of spots (e.g. see claim 9). Dulaney teaches removing the energy absorbing overlay (e.g. see column 3,lines 54-55) . It would have been obvious to adapt Dulaney et al.(003) in view of Sokol et al., Risbeck et al. to provide this to clean the workpiece as needed at each spot and subsequently remove the no longer needed energy absorbing overlay material.

11. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dulaney et al. in U.S. Patent No. 6,057,003 in view of Sokol et al. in U.S. Patent No. 6,254,703 as applied to claim 21 above, and further in view of Dulaney et al. in U.S. Patent No. 6,292,584. Dulaney et al.(584) teaches using a video monitor (element 42) as an automated means for ensuring the correct amoung ot energy absorbing overaly has been applied. It would have been obvious to adapt Dulaney et al.(003) in view of Sokol et al. and Dulaney et al.(584) to provide this to ensure proper shock wave processing.

12. Claims 5,6 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey S Evans whose telephone number is (571)-272-1174. The examiner can normally be reached on Mon-Fri 6:30AM to 4:00 PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571)-272-1171. The fax phone number for the organization where this application or proceeding is assigned is (703)-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)-272-1300.

GSE

Geoffrey S. Evans
Primary Examiner
Group 1700